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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,337	03/18/2004	Xiaoyu Li	DP-310459	5568
22851	7590	05/23/2006	EXAMINER	
DELPHI TECHNOLOGIES, INC.			BOES, TERENCE	
M/C 480-410-202			ART UNIT	
PO BOX 5052			PAPER NUMBER	
TROY, MI 48007			3682	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/803,337	Applicant(s) LI ET AL.	
	Examiner Terence Boes	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03/18/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

- “second aperture for receiving said wedge member”, recited in claim 13.
- “said second aperture” recited in claim 17.
- “enlarged portion” recited in claim 6.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "48" has been used to designate both an aperture (P[0018]/L3) and a guide (P[0017]/L7-8). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 19 is objected to because of the following informalities: the term "...great..." in line 3 appears to be a typo of the term –greater-. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the recitation "...selectively associated..." renders the claim indefinite as it is unclear as to how said tilt housing is "selectively associated" with said upper steering column jacket.

Regarding claim 15, the recitation "...wherein aperture includes..." renders the claim indefinite as it is unclear as to which of the 3 previously claimed "aperture(s)" applicant is referring to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(f) he did not himself invent the subject matter sought to be patented.

3. Claims 1-13, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al. US 2005/0199087.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Li discloses:

Re clm 1,3,4,5,10,11,12,13,18,

- Lower steering column jacket (12) for attachment to a vehicle
- Upper steering column jacket (14) engaged for telescoping movement with lower steering column jacket for supporting a steering wheel in a desired longitudinal position relative to said lower steering column jacket
- Tilt housing (16) engaged for tilting movement with said upper steering column jacket for supporting the steering wheel in a desired angular position relative to said upper steering column jacket
- Single locking device (24) for limiting telescoping and tilting movement
- Linking member (20) extending parallel to and spaced from said upper steering column jacket
- First end (right side of (20) shown connected to (22)) pivotally connected to tilt housing (see fig 4, (20) is connected to tilt housing via (22))
- Second end (see fig. 4, left side of 20 is shown connected to lower steering column jacket via (18)) slidably connected to lower steering column jacket.
- Wherein said linking member moves linearly in response to telescoping and tilting movement (see fig 4).
- Wedge member (see fig 1 below, (A)) rotatably associated with lower steering column jacket and moveable between a locked position and unlocked position (wedge member can be tightened and locked or

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loosened and unlocked, wedge member is rotatably associated with lower steering column jacket in that it is rotatable relative to lower steering column jacket)

- Single locking device includes a wedge member (A) disposed between said upper steering column jacket and linking member

Re clm 2,

- Single locking device is slidably associated with lower steering column jacket ((20) slides relative to (12)).
- And pivotally associated with said tilt housing ((16) pivots relative to (14))
- And selectively associated with said upper steering column jacket.
(Locking device (24) has been selected and associated with upper steering column jacket (12)).

Re clm 6,

- Lower steering column jacket defines an aperture (46) with an enlarged portion (enlarged portion is considered to be opening inside lower steering column jacket) wherein said wedge member (A) extends through said enlarged portion.

Re clm 7

- Lower steering column jacket including a guide (18) having an aperture (see fig 4, right side of 18 shows an aperture which (20) passes through) for receiving second end.

Re clm 8,

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- Single locking device includes first engaging element (see fig 1 below, (B)) fixedly associated with said upper steering column jacket and adjacent to said wedging element.

Re clm 9,

- Single locking device includes second engaging element (34) movably associated with lower steering column jacket and adjacent to linking member (see fig 4).

Re clm 11,

- First end adjustably connected to tilt housing (right side of (20) shown connected to (22), link member is movable and therefore adjustable).

Re clm 12,

- Single locking device includes a wedge member (A) adjacent to second end of linking member

Re clm 13,

- Wherein said lower steering column jacket includes a first aperture (see fig 4, right side of 18 shows an aperture which (20) passes through) and a second aperture (see fig 4, left side of 18 shows an aperture which (20) passes through)

Re clm 15,

- Aperture (see fig 4, left side of 18 shows an aperture which (20) passes through) including an enlarged portion (see fig 4, enlarged portion is defined by threaded portion of aperture) and single locking device

including an engaging element (see fig 4, threaded bushing shown inside of (18) is considered to be an engaging element) in enlarged portion

Re clm 16,

- Engaging element is adjustably positioned relative to linking member (engaging element is threaded and therefore adjustable relative to linking member)

Re clm 17,

- Second aperture communicating with said enlarged portion (second aperture is immediately adjacent said enlarged portion and therefore considered to be communicating)

Re clm 19,

- Said wedge member defines a pair of first surfaces (see figure below, (C) are top and bottom surfaces of wedge member) extending substantially parallel to one another and spaced from one another a first distance wherein said first distance is greater than a second distance defined between said linking member and said upper steering column jacket (see fig 4, length of wedge member appears greater than distance from linking member to upper steering column jacket)

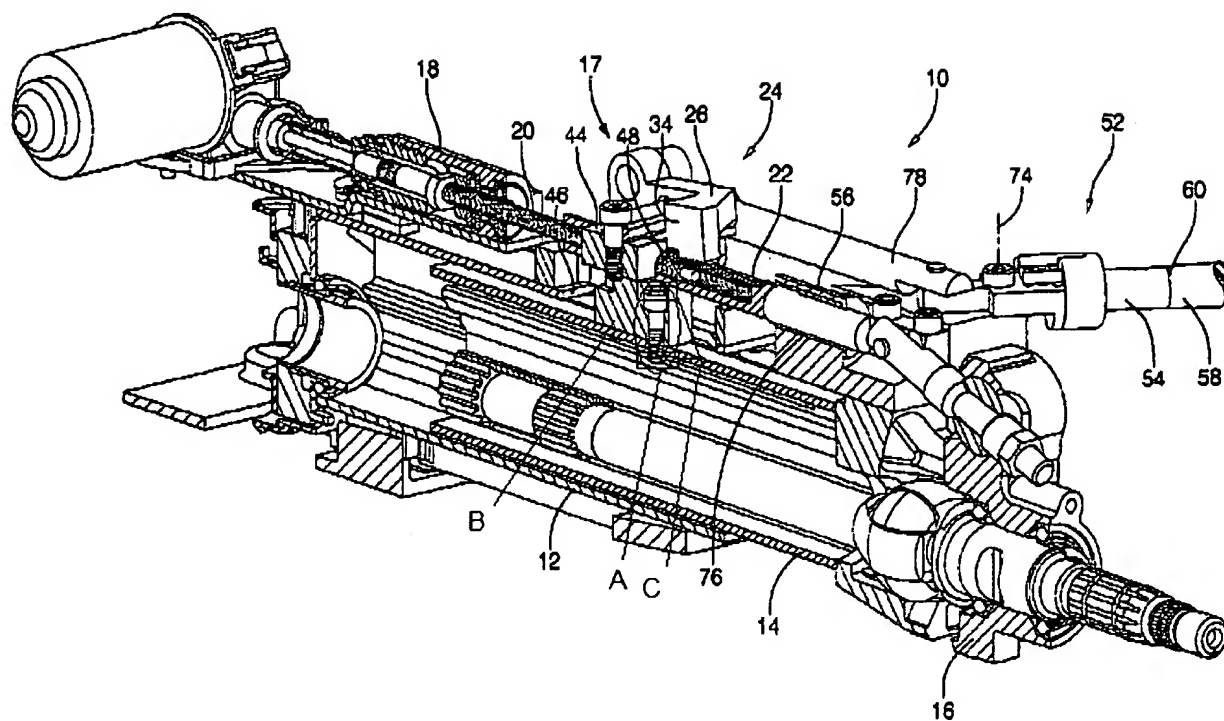


Figure 1 – Figure 4 of US 2005/0199087

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 14-17, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al US 2005/0199087 in view of Burke USP 4,179,137.

Li discloses all of the claimed subject matter as described above. LI does not disclose a lower steering column jacket defining a third aperture through which a wedge member extends.

Burke teaches a lower steering column jacket (12) defining a third aperture (71) through which a wedge member extends for the purpose of securely holding 2 tubes in a selected telescoped position (C3/L40-65).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Li and provide a lower steering column jacket defining a third aperture through which a wedge member extends, as taught by Burke, for the purpose of securely holding 2 tubes in a selected telescoped position.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al US 2005/0199087 in view of Cymbal et al. USP 5,669,270.

Li discloses all of the claimed subject matter as described above. LI does not disclose a wedge member received in a notch defined by a linking member.

Cymbal teaches a wedge member (58) received in a notch (50) defined by a linking member (36) for the purpose of concealment and to eliminate running clearance (see abstract).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Li and provide a wedge member received in a notch defined by a linking member, as taught by Cymbal, for the purpose of concealment and to eliminate running clearance.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following US patents disclose tilt and telescoping steering columns: 3,396,600; 5,199,319; 5,590,565; 6,948,741; 6,131,481; and 6,405,612.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terence Boes whose telephone number is (571) 272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TB
5/17/06

A handwritten signature in black ink, appearing to read 'Richard Ridley', is written over a faint, circular official stamp.

**RICHARD RIDLEY
SUPERVISORY PATENT EXAMINER**